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The Geopolitics of the Energy Transition [video]

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Examining the Oil for Security Proposition on its 75th Year Anniversary

Amy Conroy
February 25, 2020

Meeting between FDR and King ibn Saud Aboard USS Quincy



Does the Oil for Security Relationship between the Middle East and the U.S. still exist?

For centuries, each international order has been based on energy:

- “Arms and security for oil” between the U.S. and Saudi Arabia inked in 1945
- Reasserted with the Carter Doctrine in 1980
- This has inextricably linked the U.S. to the Middle East

Does the U.S. still need the Middle East?

The Middle East Still Matters:

- POTUS: tweeted 9 times between 2018-2019 asking OPEC to increase production

The Middle East Doesn't Matter:

- After Abqaiq attack 9/26/20, POTUS said: "We are a net Energy Exporter, & now the Number One Energy Producer in the World. We don't need Middle Eastern Oil and Gas, & in fact have very few tankers there, but will help our allies."

Key Oil Stats to Keep in Mind

Global Stats (2018)

- Oil Production and Consumption: **100 million barrels per day (b/d)**

U.S. Stats (2018):

- US consumption: 20.5 million b/d
- US crude oil production: 11 million b/d
 - US crude oil imports: 7.7 million b/d
 - US crude oil exports: 2 million b/d
- Petroleum product imports: 2.2 million b/d
- Petroleum product exports: 5.6 million b/d

Looking Forward to 2040, the world will need:

- Base case: **106 million b/d**
- Under sustainable development plan: **66 million b/d**

Source: EIA 2018 data, IEA 2019 data



Fundamental Oil Trends:

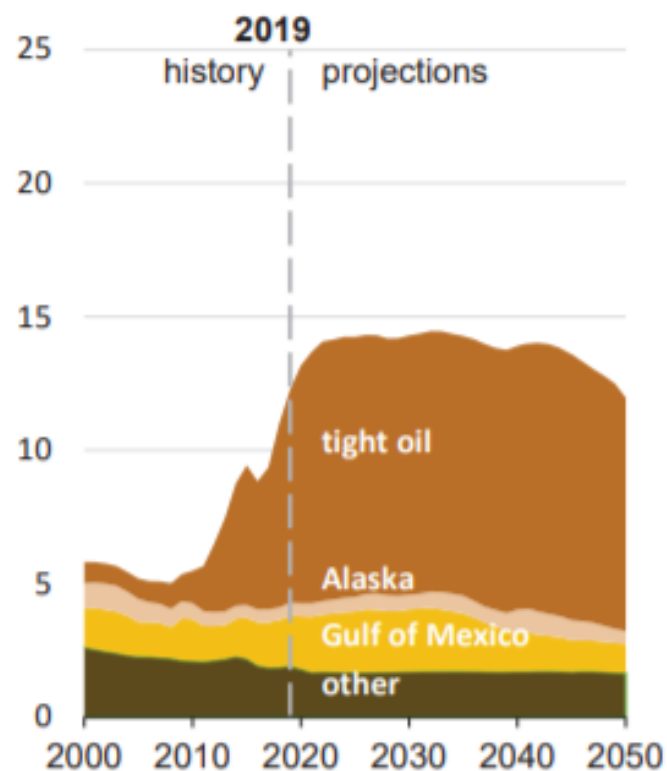
1. US shale oil production has changed global market
2. OPEC still plays important role in global oil market
3. Oil reserves are controlled National Oil Companies (NOCs)
4. The oil market remains interconnected
5. Consumer demands changing

United States Crude Oil Production, Three Scenarios

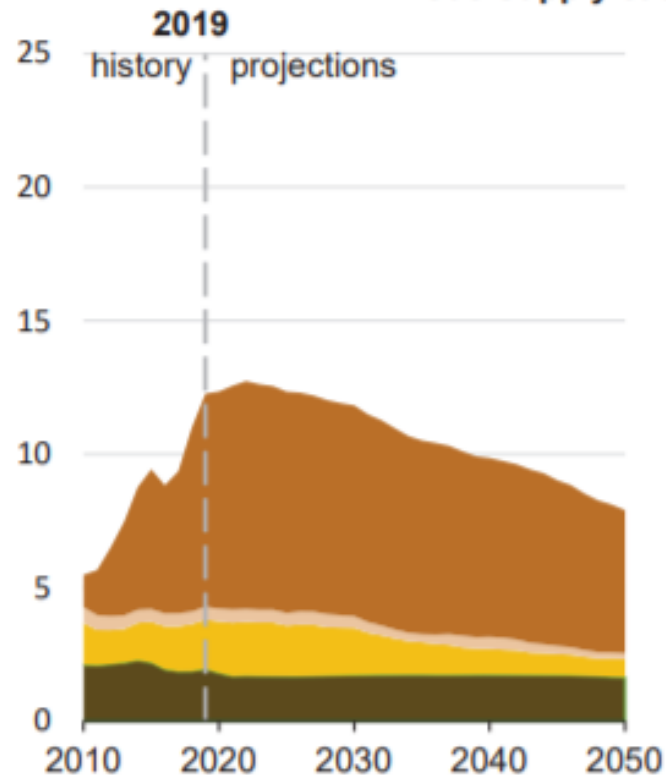
AEO2020 crude oil production

million barrels per day

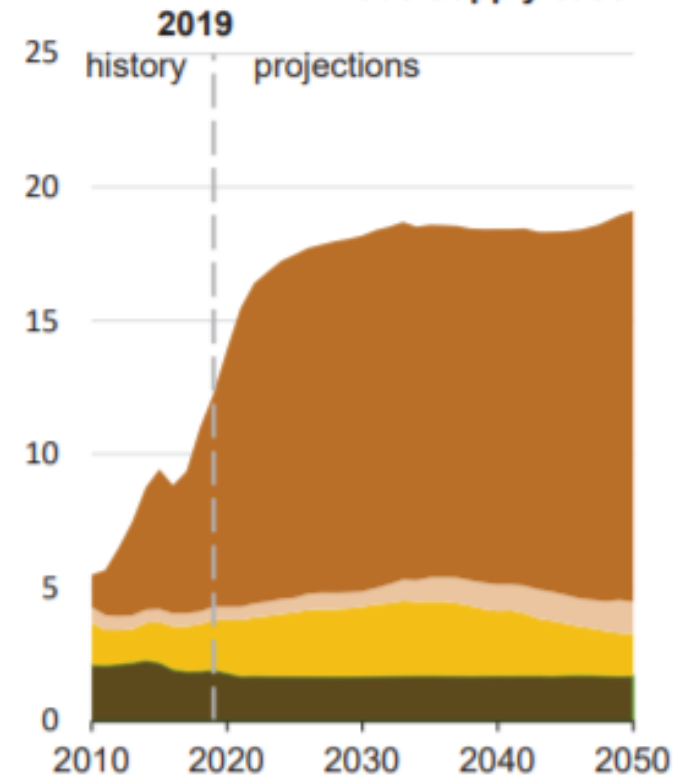
Reference case



Low Oil and Gas Supply case

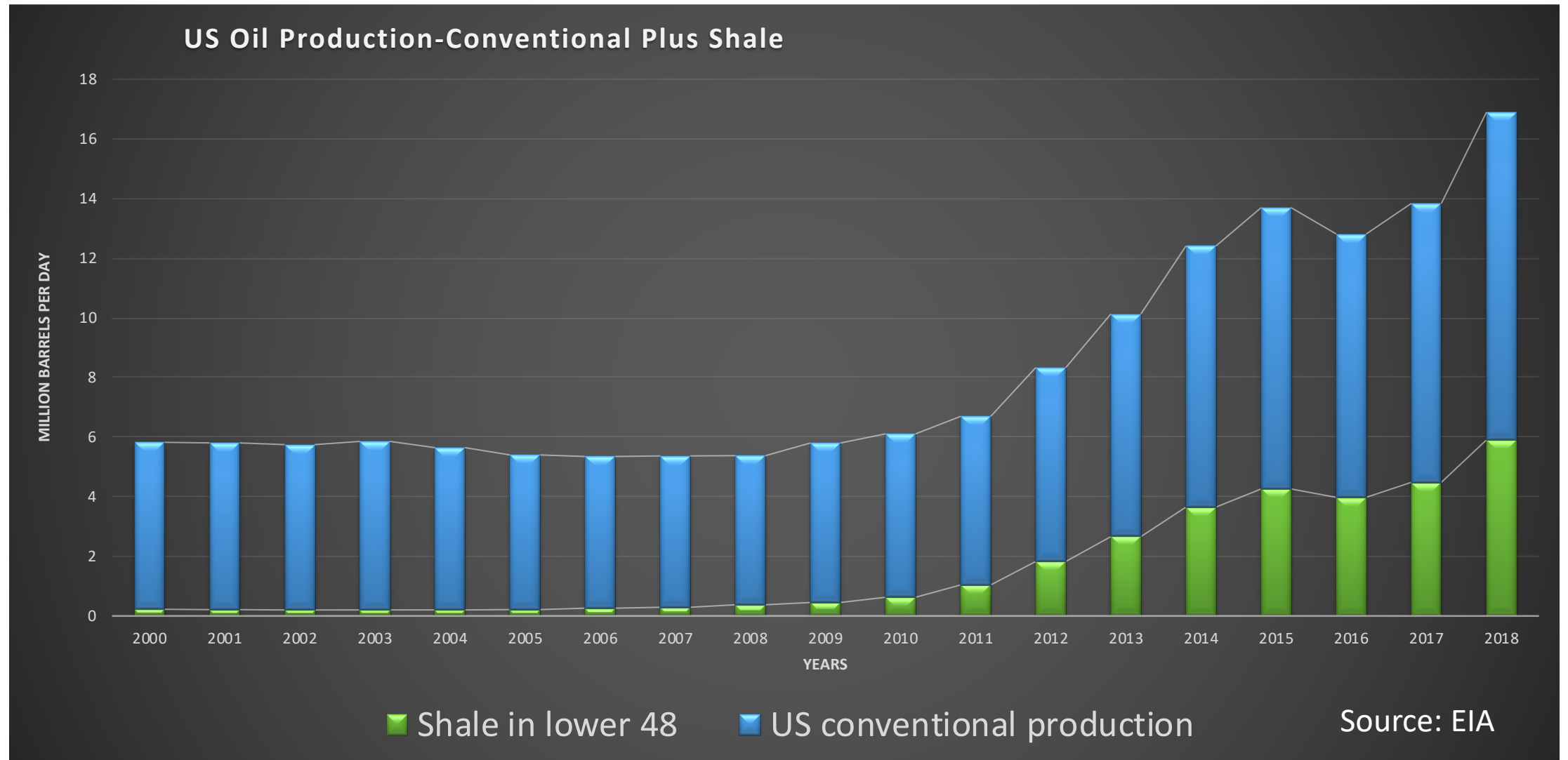


High Oil and Gas Supply case

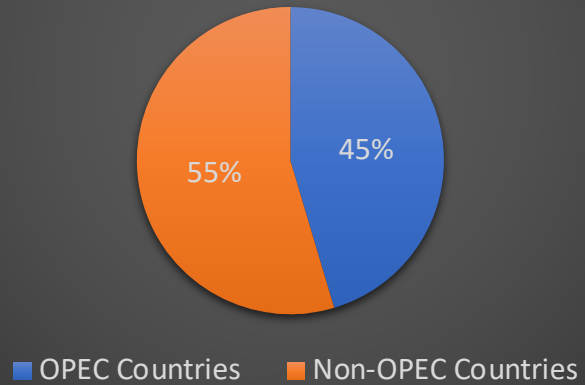


Source: EIA

Growth in US domestic production



U.S Imports of Crude Oil and Petroleum Products, 2000 (total: 11.6 m b/d)



Largest sources of US imports (2000)

Canada: 16%

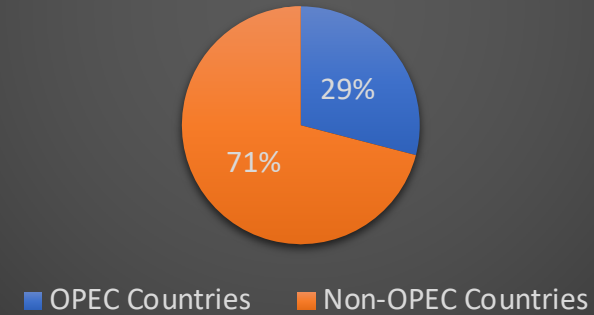
Saudi Arabia: 13%

Venezuela: 13%

Mexico: 12%

Nigeria: 8%

U.S Imports of Crude Oil and Petroleum Products, 2018 (total: 9.9 mb/d)



Largest sources of US imports (2018)

Canada: 43%

Saudi Arabia 9%

Mexico: 7%

Venezuela: 6%

Iraq: 5%

Host Countries Have Gained Increased Control

Concession: A government gives a concession to a prospector.

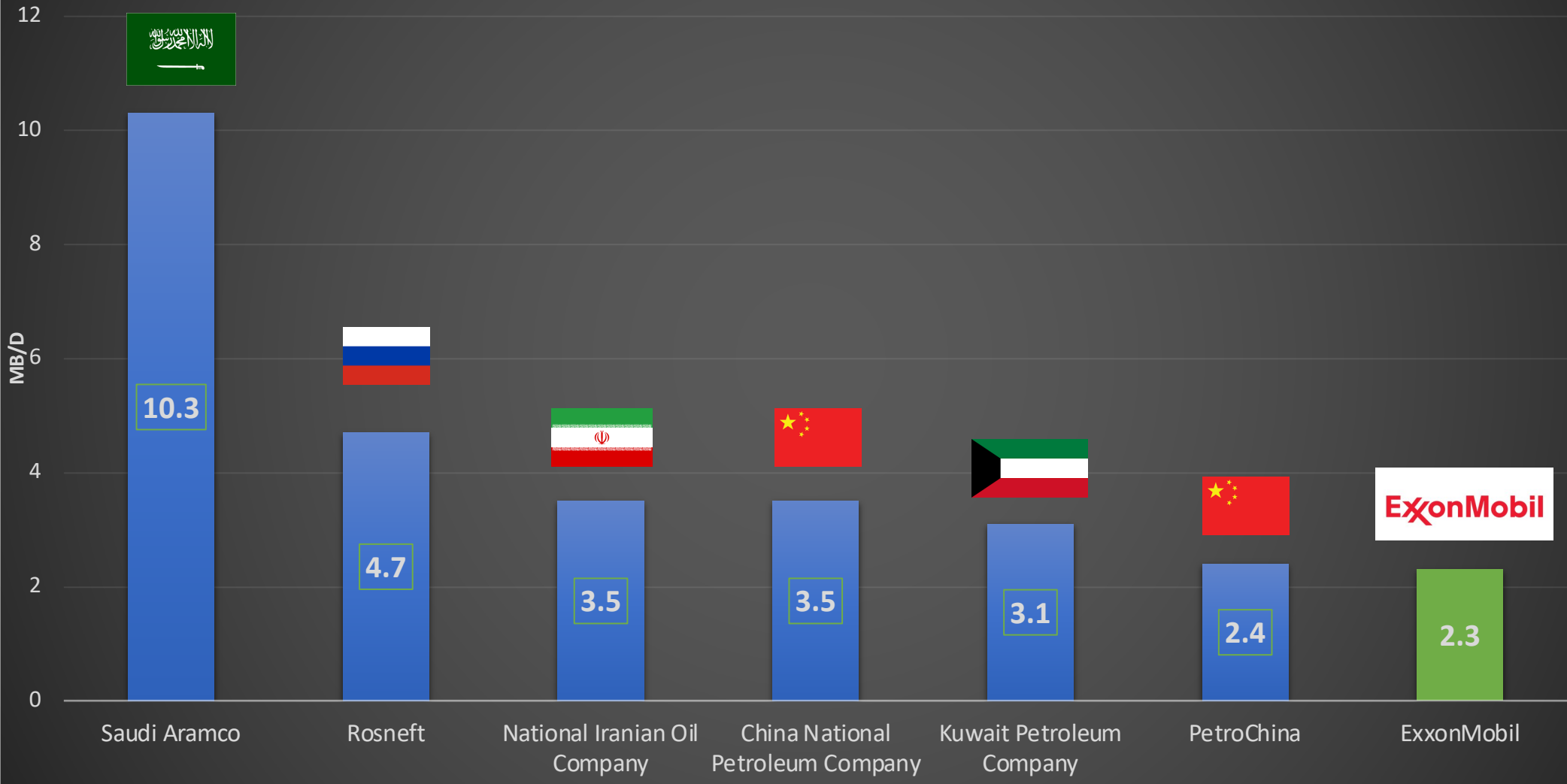


Production Sharing Contract (PSC or PSA): Host country remains owner of resource

Joint Venture: Agreement between foreign oil company and a national oil company of the host country.

Technical Service Agreement (TSA): a company can do a job for a host country's NOC.

Largest Oil Companies by Crude Production in 2018



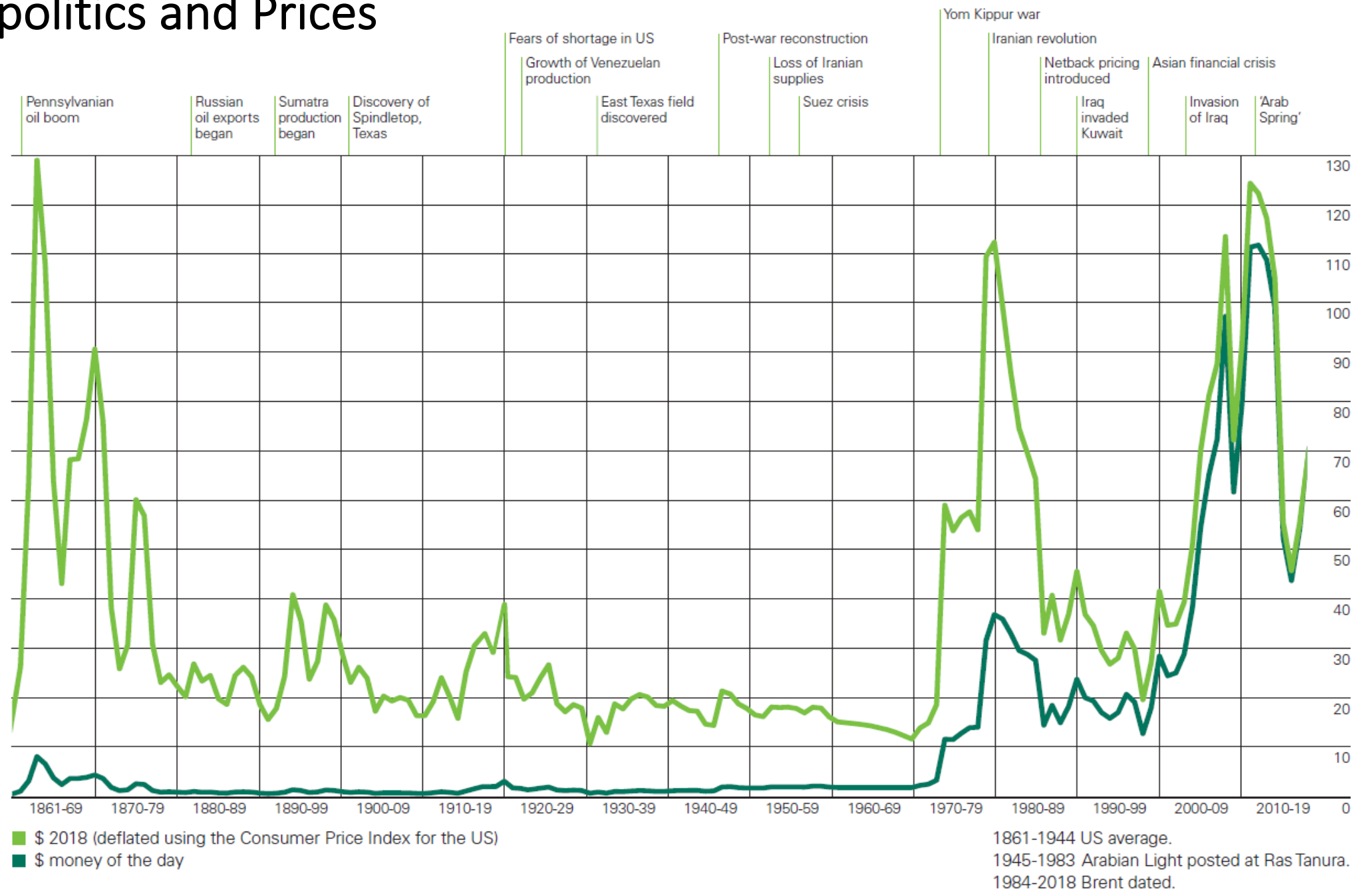
The Power of OPEC

Iraq, Iran, Venezuela, Kuwait, Qatar, Saudi Arabia original members. Maintain market and respond to world events.

Controls 81% of the world's total proved crude oil reserves and 42% of total world crude oil production. But, no longer have the same power.

Needs of OPEC members significantly different

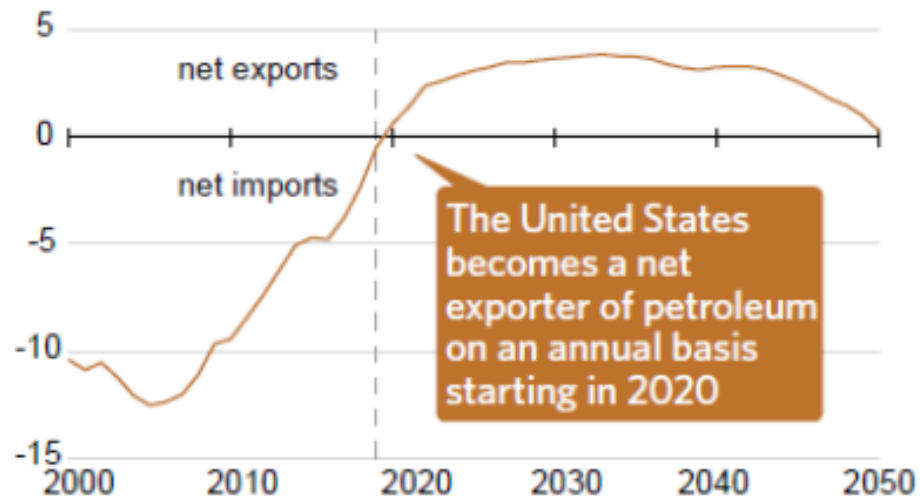
Geopolitics and Prices



Can the United States be energy independent?

U.S. petroleum and other liquids net exports

million barrels per day



Source: EIA

- **US expected to be a net exporter of petroleum this year, however:**
- Prices set by geopolitics, traders, consumer confidence, supply and demand
- Oil is very interconnected global market
- Remains a mismatch by what refiners in the US want (heavy crude) and what the US is producing (light crude)
 - Refineries in California isolated from large US oil fields and rely on and are configured to Saudi crude

Strait of Hormuz



The Strait of Hormuz: A Shipping Chokepoint

61% of oil moves via maritime routes, the rest by rail, pipeline and truck

The Strait of Hormuz: 21 million barrels flow through every day.

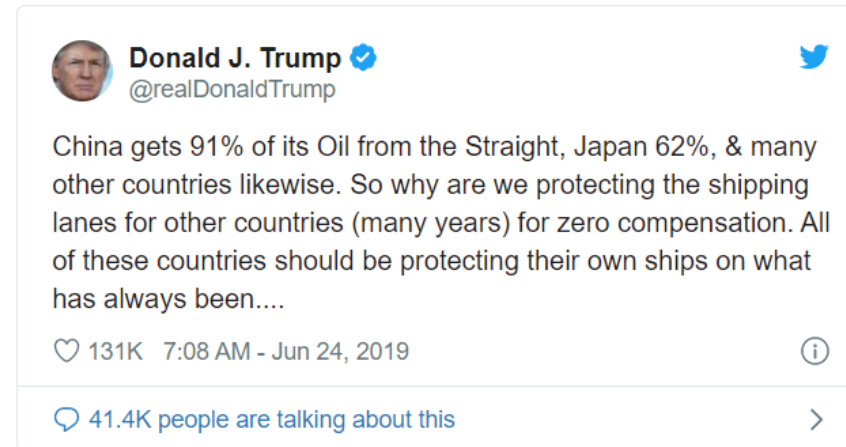
- The US imported 1.4 million b/d passing through the Strait, accounting for about **18% of total U.S. crude oil imports**.
 - Half of which is destined for US West Coast refineries.



Security, Shipping, and Supply

America's Free-Rider Problem/ Global Police in the Strait of Hormuz

- “There are moral hazards going on. The U.S. has not been willing to walk away from the Gulf, so other allies may not step up to do anything because they know that if they don't, the U.S. will.” – Caitlin Talmadge



- US has had a military presence in the Gulf since post World War 2.
- \$1.2 billion worth of oil flows through the Strait daily
- Saudi is now China's #1 supplier (with the Chinese importing 20-25% of their total crude needs) but offers no security assistance

Oil Market: Lessons from Abqaiq

- September 14: Oil price jumped 20%, to over \$69 per barrel...then quickly back to mid-\$60s.
 - Saudi Oil Minister reassured world.
 - *Perception* that shale could ramp up quickly
 - Targeted strike by Iranians to send a message to the US via Saudi attack
 - Saudi and US did not immediately retaliate
- World interpreted as US won't protect the Saudi facility/doesn't care about Middle East
 - Likely to shift in exports and development of strategic partnerships.
 - Iran could be emboldened
 - Russians and Chinese likely to increase influence as US withdraws
- Where does this all leave the relationship?